



Calgary



Roads Annual Survey 2018

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enrg RESEARCH GROUP



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Executive Summary

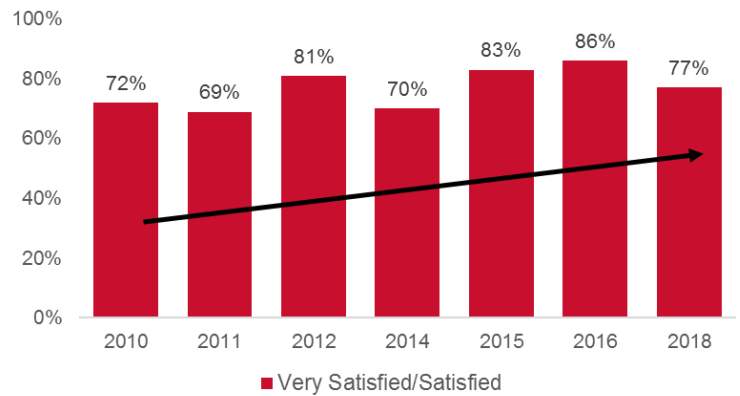
The City of Calgary's Roads business unit provides a safe, effective and well-maintained road system for all travel modes, with a commitment to excellence, innovation, sustainability and environmental sensitivity. Roads conducts an annual phone survey of 500 randomly selected Calgarians to understand citizens' perceptions of conditions and operations of main and neighbourhood roads, signs, road markings, and traffic controls. The results of the survey are used to understand citizens' perceptions of services and assist Roads with ongoing planning and development.

Key Findings

Key Performance Indicator

- In 2018, 77% of Calgarians indicated that they are very satisfied or satisfied with the maintenance and operation services provided by The City of Calgary Roads.
- This is a 9 percentage point decrease since 2016 in the overall maintenance and operation services.
- Despite this decrease, satisfaction is experiencing an upward trend according to historical data.

Satisfaction with Maintenance and Operation Services Provided by Roads

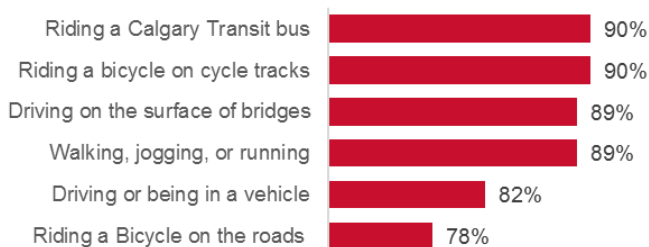


Roads Conditions and Safety

- Satisfaction with road conditions and safety when using various modes of transport remains high in 2018.
- However, those who ride bicycles on roads had a lower satisfaction score in both aspects (roads condition and safety), at 78% and 69% respectively.

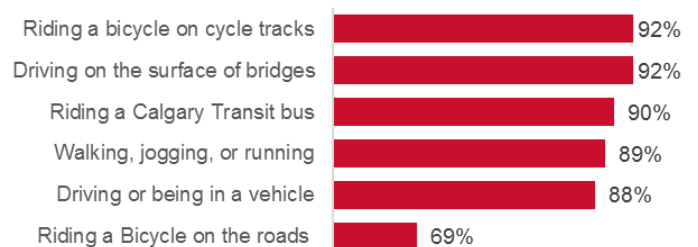


Satisfaction with Road Condition When



■ Very Satisfied/Satisfied

Satisfaction with Safety When

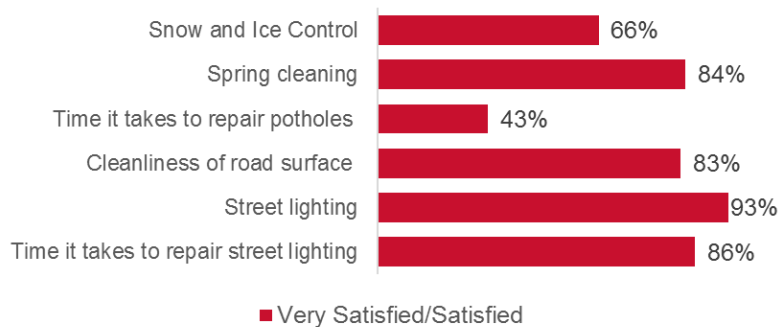


■ Very Satisfied/Satisfied

Satisfaction with Main Road Attributes

- In 2018, 68% of Calgarians indicated that they were very satisfied or satisfied with the general condition of the main roads. This is an 11% decrease since 2016.
- Satisfaction with street lighting saw a 3 percentage point increase while all other attributes decreased since 2016, with pothole repair decreasing the most by 26 points.

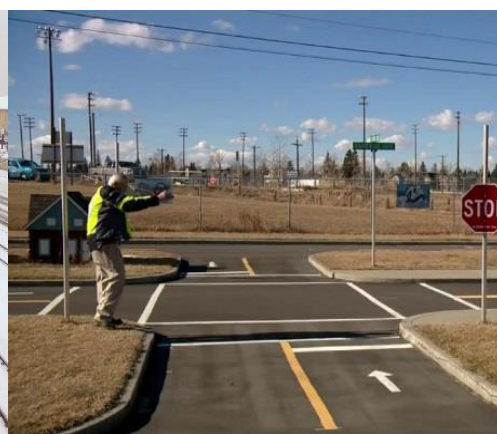
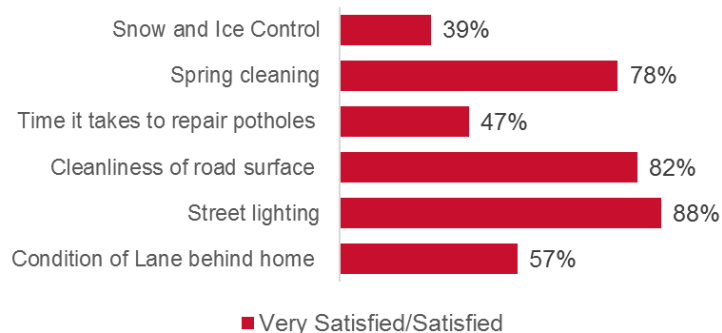
Main Road Attributes



Satisfaction with Neighbourhood Road Attributes

- In 2018, 81% of Calgarians indicated that they were very satisfied or satisfied with the general condition of neighborhood roads. This is an 8% decrease since 2016.
- Similar to main road, street lighting saw a 2 percentage point increase while all other attributes decreased since 2016. For neighborhood roads, however, snow and ice control received the lowest satisfaction score and saw the largest decrease of 28 points.

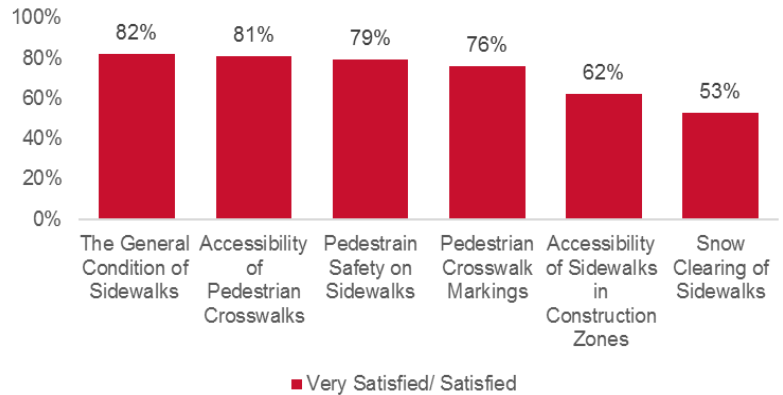
Neighbourhood Road Attributes



Sidewalks

- Eight-in-ten (82%) Calgarians report that they are very satisfied or satisfied with the general condition of sidewalks.
- However, when rating specific attributes, snow clearing (53%) and accessibility of sidewalks (62%) in construction zones saw lower satisfaction scores.
- The majority of Calgarians (88%) indicated that they are very satisfied or satisfied with business area sidewalks.
- Satisfaction with the overall condition of business area sidewalks increased by 3 percentage points in 2018.

Satisfaction with Sidewalks (Main Roads)



Overall Condition of Business Area Sidewalks



Pedestrian Crosswalk Markings in Business Areas





Introduction

The City of Calgary's Roads business unit provides a safe, effective and well-maintained road system for all travel modes, with a commitment to excellence, innovation, sustainability and environmental sensitivity. The importance of a well maintained and managed road system is seen by Calgarians as one of the highest priorities in maintaining a high quality of life. The importance of roads to people's daily lives also means they have high expectations.

Roads conducts an annual survey of Calgarians to understand citizens' perceptions of conditions and operations of main and neighbourhood roads, signs, road markings, and traffic controls. This Report presents the findings and data from the 2018 survey.

Survey Objectives

- Measure Calgarians' overall satisfaction with maintenance and repair of roads in Calgary;
- Assess Calgarians' perceptions of the maintenance and conditions of main and neighbourhood roads;
- Examine Calgarians' satisfaction with traffic controls at intersections; and
- Assess Calgarians' opinions about the outcomes from the maintenance and operations services of Roads.

Methods

Telephone Survey

- NRG Research Group conducted the survey via Random Digit Dialing (RDD), including both a landline (55.5%) and cell sample (45.5%) from June 13 to June 24, 2018. The average interview length was 19 minutes.
- In total, 500 interviews were conducted with Calgarians who were 18 or older.
- Quotas were put in place to ensure a good distribution across age, gender, and quadrant within Calgary.
- The final 2018 sample was weighted to ensure the overall sample's age, gender and quadrant composition reflects that of the actual Calgary population aged 18 and older according to 2016 Census data. The margin of error at the 95% confidence level for the total sample of n=500 is +/- 4.38.

Open-link Survey

- An open-link survey was conducted from June 13th to June 30, 2018. It was promoted by The City of Calgary on social media platforms as well as the The City of Calgary website.
- In total, 1486 Calgarians self-selected to participate in the survey. As this was not a random sample, the margin of error is not calculated.
- The intent of the open-link was to provide citizens not selected in the random telephone survey the opportunity to provide feedback on Roads. As this is not a representative sample, data were not weighted.
- The telephone survey data and open-link survey data were **not** merged for any section of the report.

Notes

- Historical data is presented where possible. Some years of historical data may be missing due to content change or if the survey was not fielded during a particular year (e.g., 2013 is missing due to flooding in Calgary).
- Base sizes vary from question to question due to some questions not applying to the respondent or some respondents electing to skip questions or responding with "don't know".
- Top 2 Box scores (e.g., percent of Calgarians indicating they are either satisfied or very satisfied, either agree or strongly agree etc.) may not add to 100% percent due to rounding.
- Percentages in charts are not displayed if there were fewer than 5% respondents selecting that option.

Detailed Findings

Satisfaction with Roads Business Unit Services

In 2018, just under eight-in-ten Calgarians (77%) indicated that they were either very satisfied or satisfied with the maintenance and operation services provided by the Roads business unit (Figure 1). This is a decrease of 9 percentage points since 2016, and the lowest score since 2014. This decrease has mostly occurred due to respondents shifting from the somewhat satisfied category to somewhat dissatisfied. Despite this decrease, data are showing a general upward trend in satisfaction over the years (Figure 2).

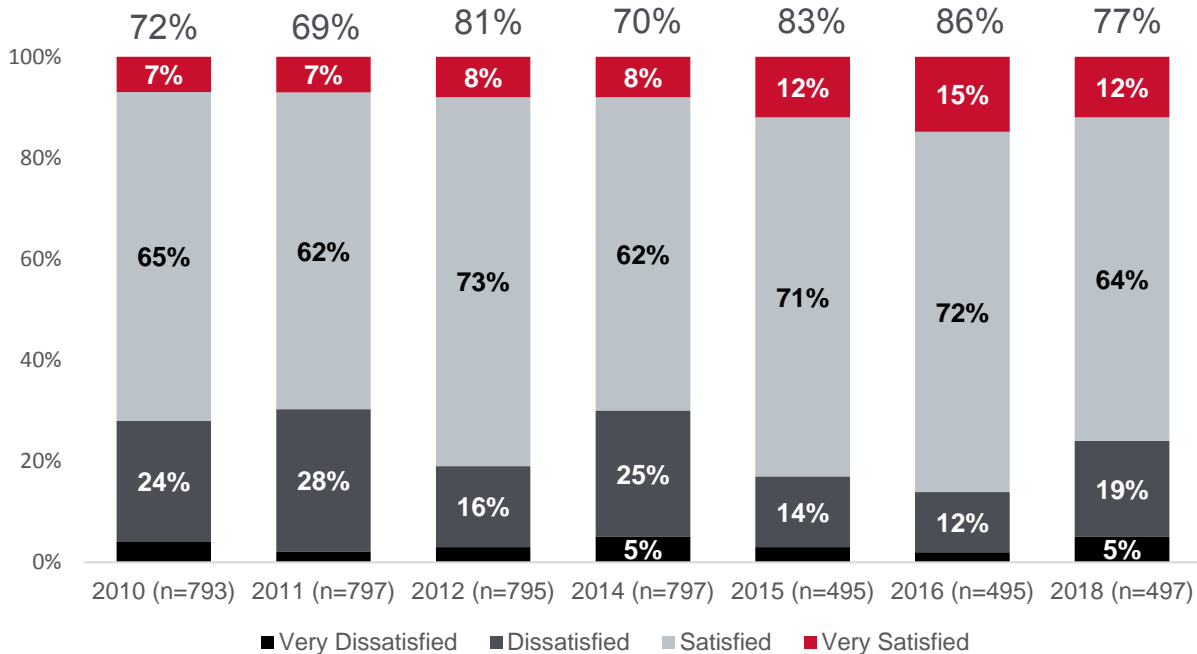
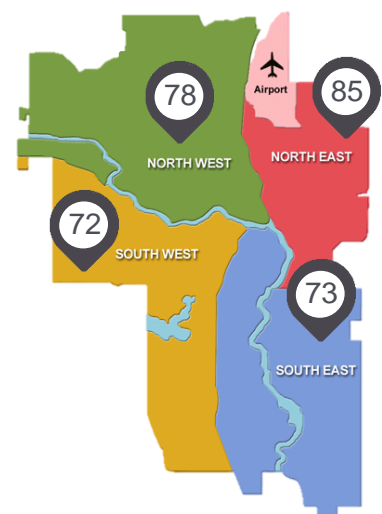


Figure 1. Overall, satisfaction with the maintenance and operation services provided by the Roads business unit.

Satisfaction by Region

The overall satisfaction score was broken down further in order to investigate satisfaction levels within each quadrant. The Northeast had the highest percentage of individuals who indicated that they were either very satisfied or satisfied (85%). This is followed by the Northwest at 78%. The Southeast and the Southwest had the lowest satisfaction scores, at 73% and 72%, respectively.



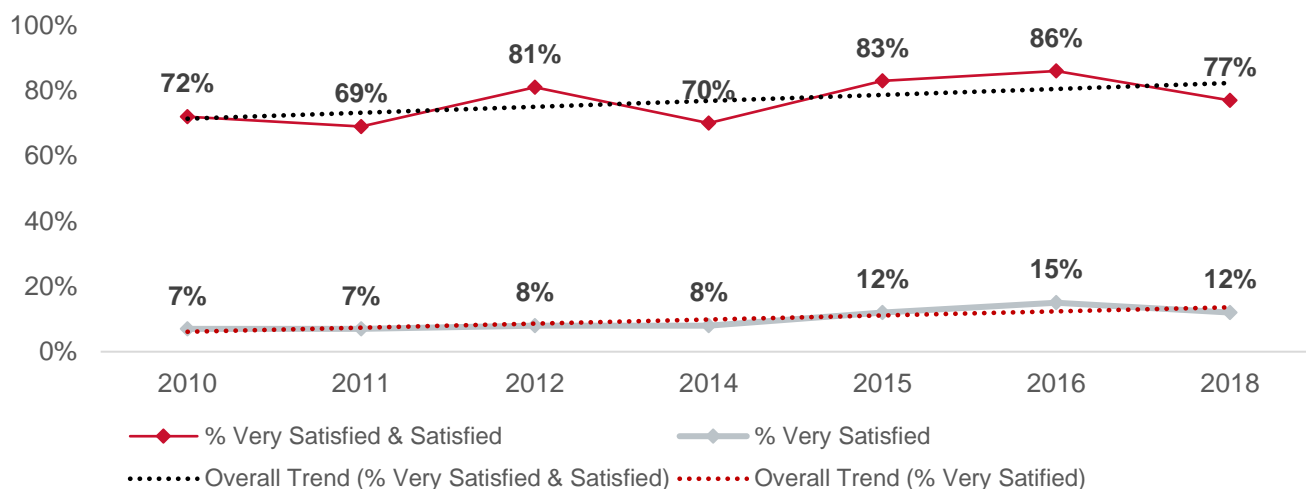


Figure 2. Year-over-year trends of very satisfied responses and very satisfied and satisfied combined.

Reasons for Satisfaction

In an open-ended question, Calgarians were given the opportunity to provide reasons behind their overall satisfaction. Verbatim comments were then coded for the purpose of finding common themes. For compliments, Calgarians frequently mentioned that they are satisfied with things as they are (12%) and that Roads does a good job all things considered (e.g., population, budget, weather, etc.) Other comments revealed some concern regarding snow/ice removal (10%) as well potholes not being repaired well or in a timely manner (9%). In total, 37% of comments mentioned a compliment, while 57% mentioned a concern. The remaining responses were categorized as “always room for improvement” (1%) and “unsure” (4%).

Reasons for Levels of Satisfaction								
Reasons		% of Responses						
		2010 (n = 787)	2011 (n=790)	2012 (n=768)	2014 (n=785)	2015 (n=484)	2016 (n=499)	2018 (n=471)
Compliments	Satisfied with things as they are	12%	12%	13%	10%	25%	34%	12%
	Do a good job for circumstances (population, budget, weather)	9%	16%	13%	6%	7%	7%	6%
	Overall Maintenance of roads is good	5%	8%	10%	6%	10%	6%	4%
	Other Compliments	-	-	-	-	-	-	15%
Concerns	Snow/ice removal poorly done/not timely	14%	7%	4%	9%	6%	3%	10%
	Potholes not repaired in a timely manner/well done	5%	8%	6%	10%	5%	3%	9%
	Repairs are not done in a timely manner	4%	4%	4%	5%	4%	3%	5%
	Roads are in poor condition (e.g., bumpy, cracked, not repaired well)	2%	3%	5%	3%	1%	1%	5%
	Too many detours/construction going on at once	2%	1%	1%	<1%	2%	3%	4%
	Other Concerns	-	-	-	-	-	-	24%
Multiple response; number of responses		1188	1117	935	1177	644	644	689

Table 1. Coded verbatim comments for reasons for satisfaction

Satisfaction with Conditions and Safety for Travel

Satisfaction with Conditions

First, Calgarians were asked to indicate whether they have personally used various modes of transportation in the past 12 months. Results show that while most Calgarians have driven a vehicle (92%), under half have ridden a Calgary Transit bus (48%) or ridden a bicycle on Calgary roads (41%). Complete results are shown in Figure 3.

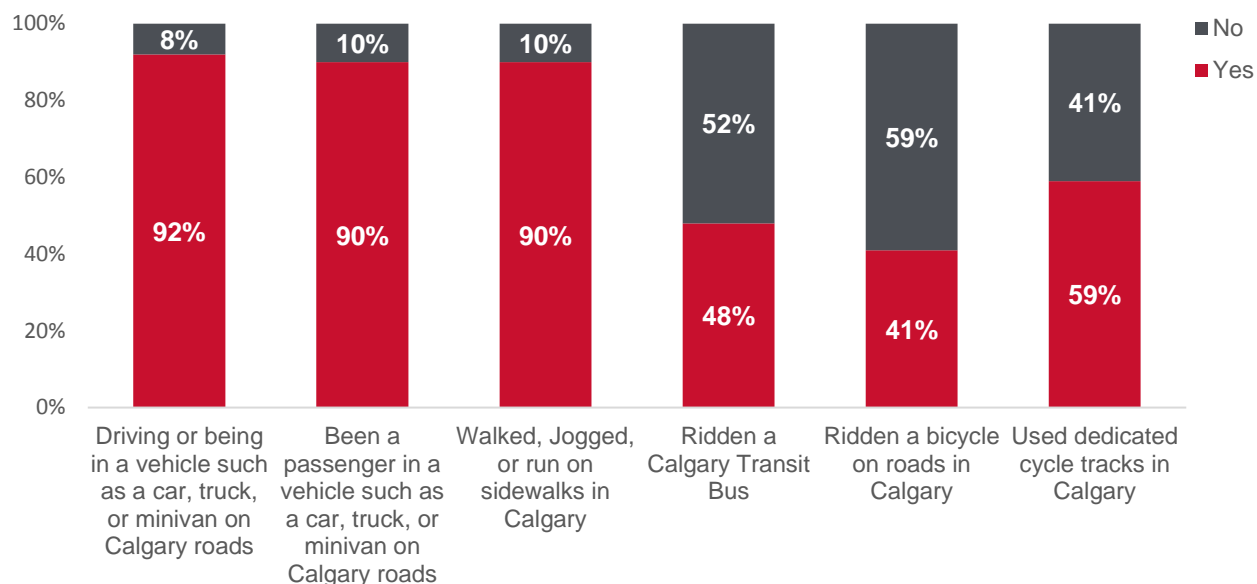


Figure 3. Calgarians' use of various modes of transport in the last 12 months

Calgarians were then asked to rate their satisfaction with road conditions for each mode of transport they have used. In 2018, there has been a slight decrease (between 2 and 6 percentage points) in the percentage of satisfied and very satisfied responses for all modes that Calgarians were asked to evaluate. Satisfaction remains highest for riding a bicycle on a dedicated cycle track (90%), despite a decrease of 6 percentage points since 2016. However, satisfaction scores remain high, with at least 8 in 10 Calgarians indicating that they are satisfied in most areas. There is some opportunity to improve conditions for cyclists on roadways, as satisfaction remains the lowest for this mode of transport (78%) with an additional decrease of 4 percentage points over the last 2 years. Detailed results are presented below in Figure 4.



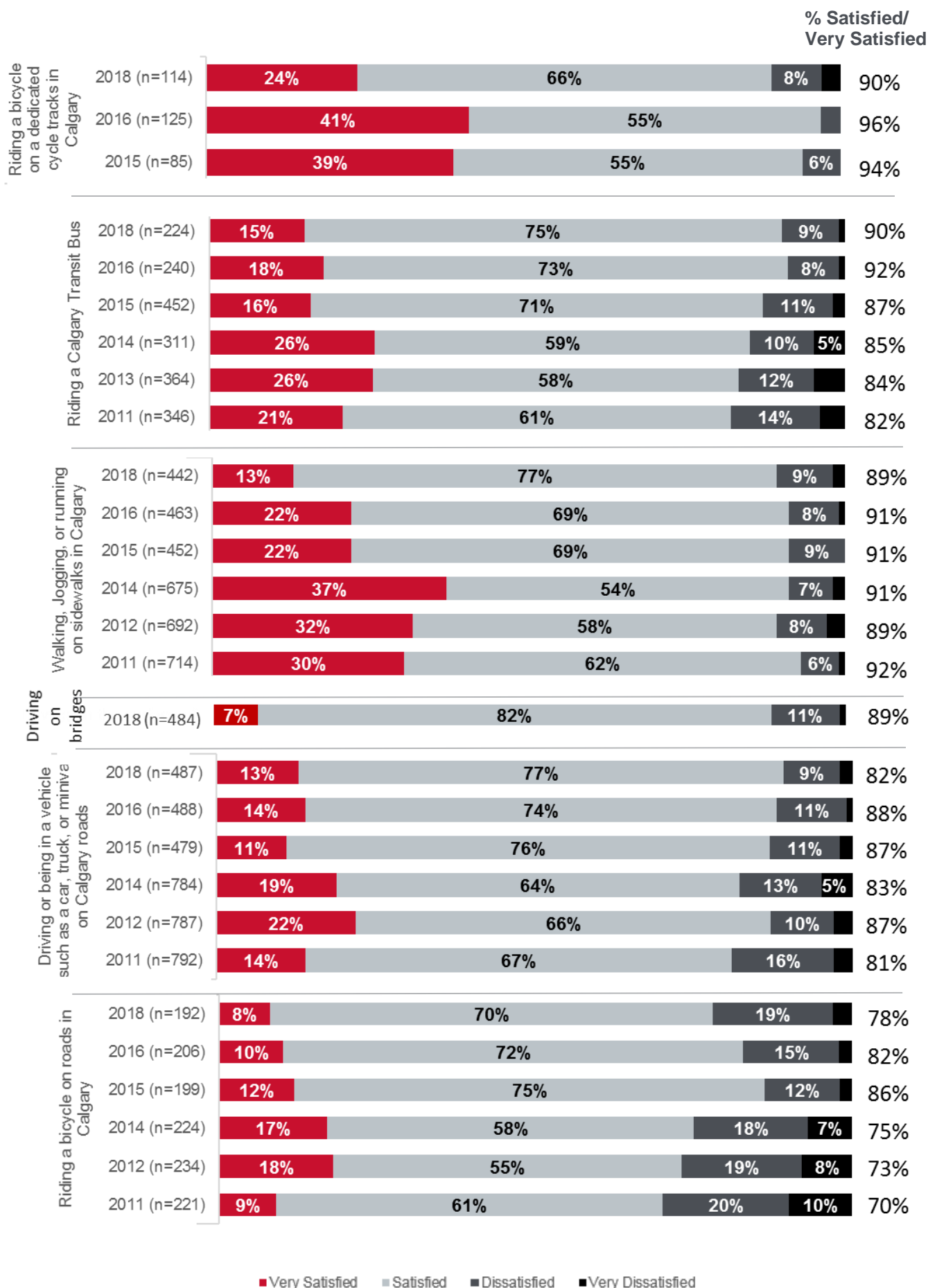


Figure 4. Satisfaction with road conditions while engaging in various modes of transport.

Satisfaction with Safety

New in 2018, Calgarians were also given an opportunity to provide their level of satisfaction with their safety when using the aforementioned modes of transport. As shown in Figure 6, riding a Calgary Transit bus and driving on the surface of roadway bridges emerged as the highest rated in terms of safety, with 92% of Calgarians indicating that they are very satisfied or satisfied. Just under 9 in 10 Calgarians indicated that they are very satisfied or satisfied with their safety when driving a vehicle (88%) or walking, jogging, or running (89%). Consistent with the results above, riding a bicycle on roads in Calgary had a lower satisfaction score of 69%. See Figure 5.

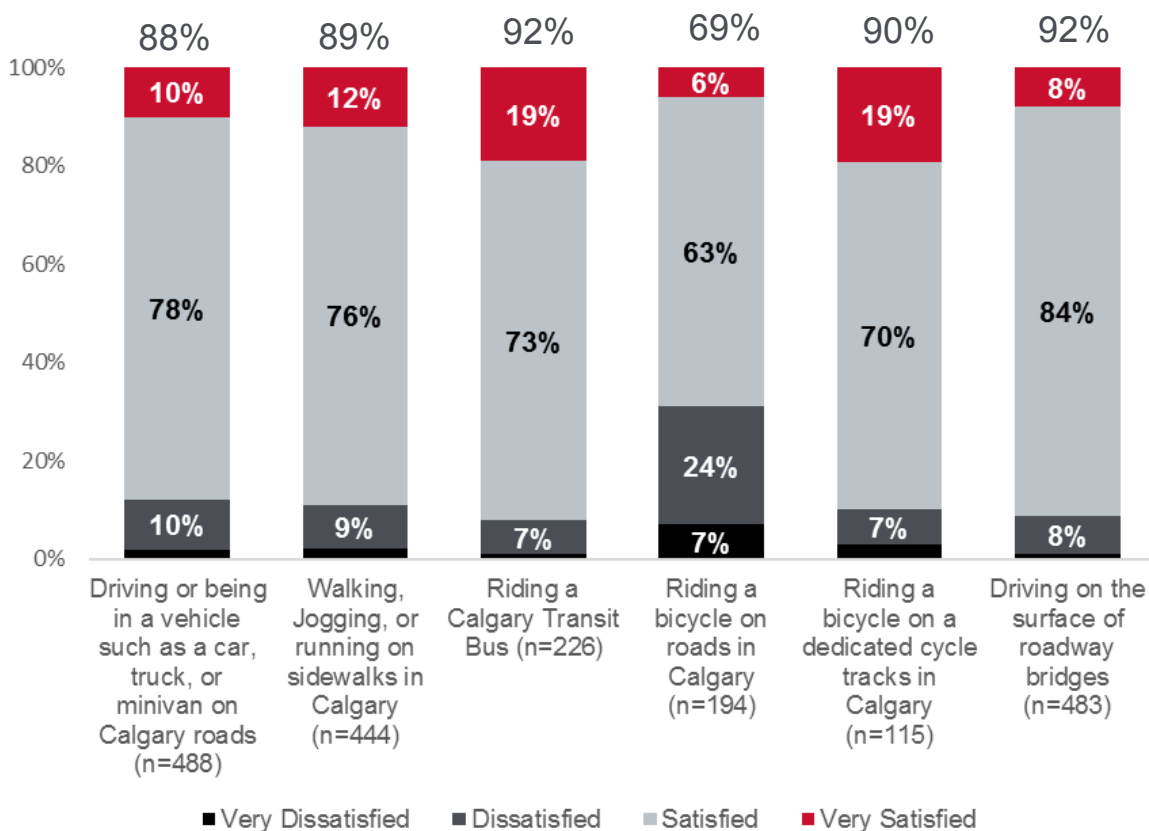


Figure 5. Satisfaction with safety when engaging in various modes of transport.



Perceptions of Travel Experience

Perceptions of Various Travel Attributes (Roads)

Calgarians were asked to rate their level of agreement with the safety, accessibility, and efficiency of travel on Calgary roads. In 2018, approximately 8 in 10 Calgarians agreed that travel is reasonably safe on roads (84%), that they are not limited from being able to travel from place to place (79%), and that travel times to get from place to place are reasonable (76%), as shown in Figure 6. The level of agreement with the statements has decreased since 2016 for each attribute. Most notably, there has been a shift in the percent of Calgarians from the strongly agree to the somewhat agree category.

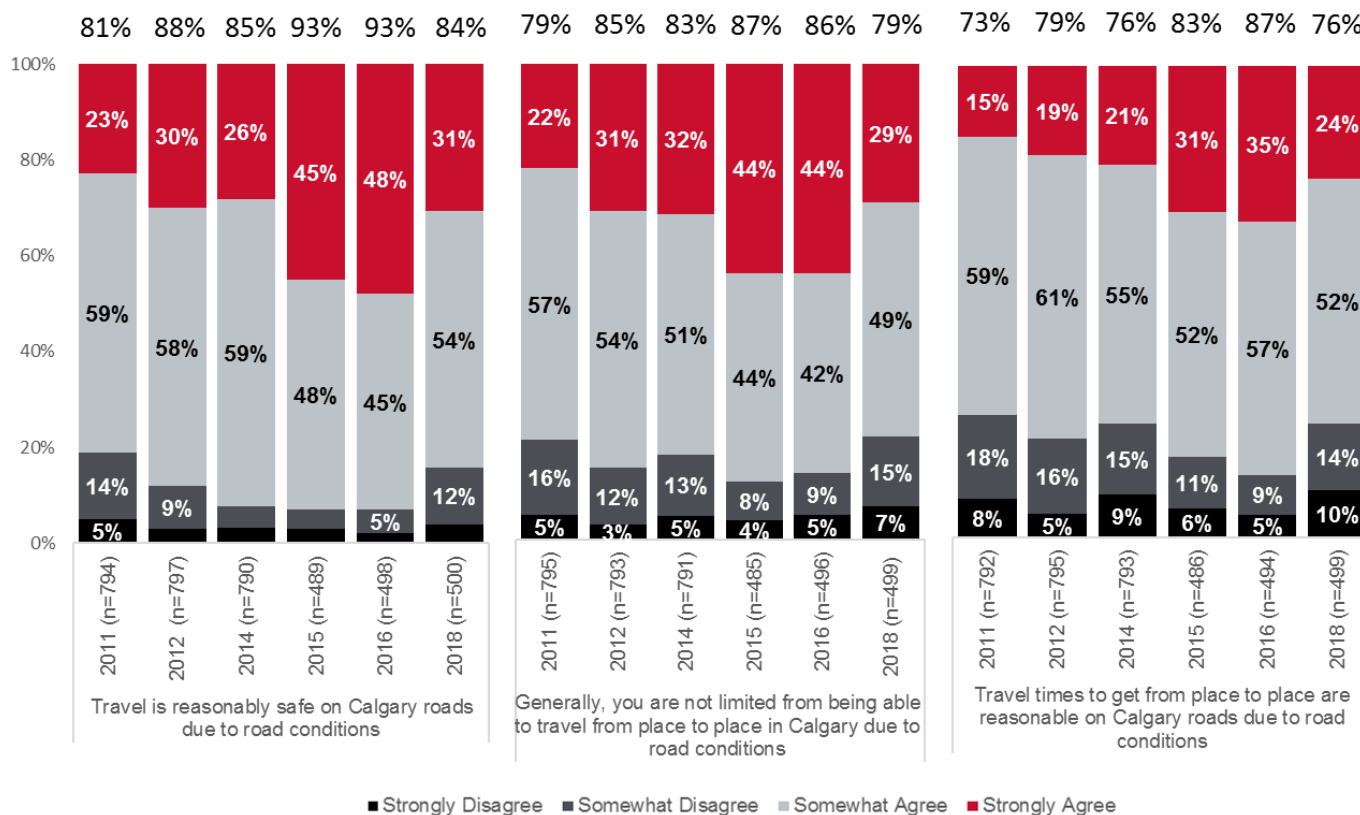


Figure 6. Perceptions of safety, accessibility, and efficiency of travel on Calgary Roads.

Perceptions of Travel Experience

Perceptions of Various Travel Attributes (Sidewalks and Pathways)

In addition to asking about Calgarians perceptions regarding roads, this year Calgarians were also asked about traveling on pathways and sidewalks. As depicted in Figure 7, most Calgarians agreed that the condition of pathways allow for safe travel by foot, bike, or other means (89%), and that sidewalk conditions ensure safe travel by foot (88%).

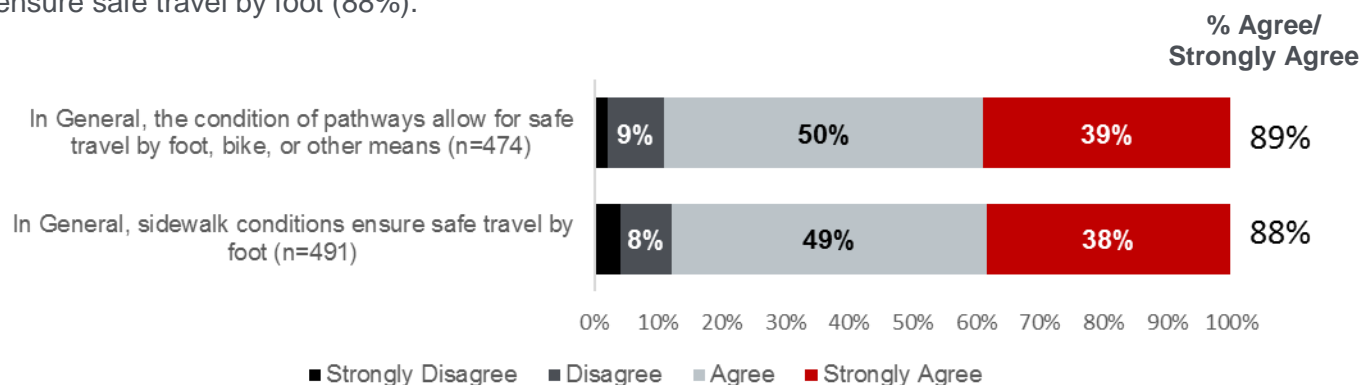


Figure 7. Perceptions of traveling on pathways and sidewalks.

Perceptions of Travel Limitations

Lastly, Calgarians assessed the extent to which they are limited by traffic congestion, traveling on sidewalks, and traveling on pathways. Level of agreement that they are not limited was high for both travelling from place to place on sidewalks (87%), as well as travelling from place to place on pathways (86%). However, when asked whether they are generally not limited from driving to their destination every day by traffic congestion, agreement was slightly lower (66%). See Figure 8.

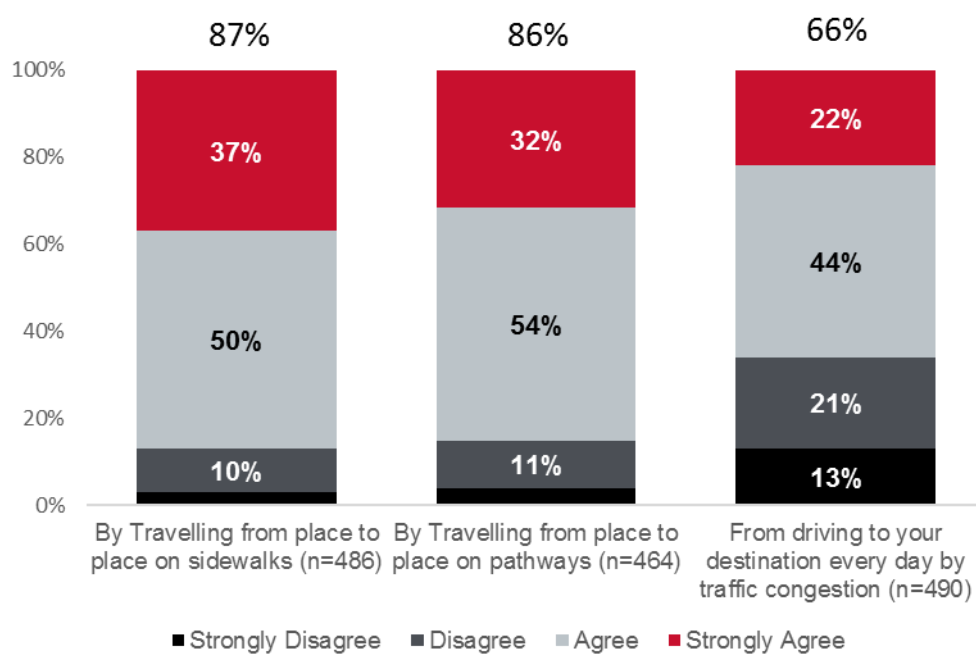


Figure 8. Perceptions of travel limitation when driving, travelling on sidewalks, and travelling on pathways.

Main Roads

The Roads Business Unit provides various operations and maintenance services for roadways within Calgary. The following section evaluates Calgarians' opinions of road services associated with main roads, excluding Stoney Trail and Deerfoot Trail. Respondents were asked to consider main roads such as Memorial Drive, Glenmore Trail, Barlow Trail, Macleod Trail, and Country Hills Boulevard.

Roads Conditions and Services – Main Roads

Figure 9 (pg. 15-16) presents Calgarians' ratings of conditions and services of main roads. In 2018, the highest satisfaction scores were given to the condition and services related to street lighting, with condition of street lighting receiving an overall satisfaction score of 93% (very satisfied + satisfied), and pace of street lighting repair receiving an overall satisfaction score of 86% (very satisfied + satisfied). Cleanliness of road surfaces was not far behind with 83% of Calgarians indicating that they are satisfied or very satisfied. Lower satisfaction scores were seen in the areas of road surface condition (43%), the level of snow and ice-control during the past 12 months (66%), and the time it takes to repair potholes (43%).

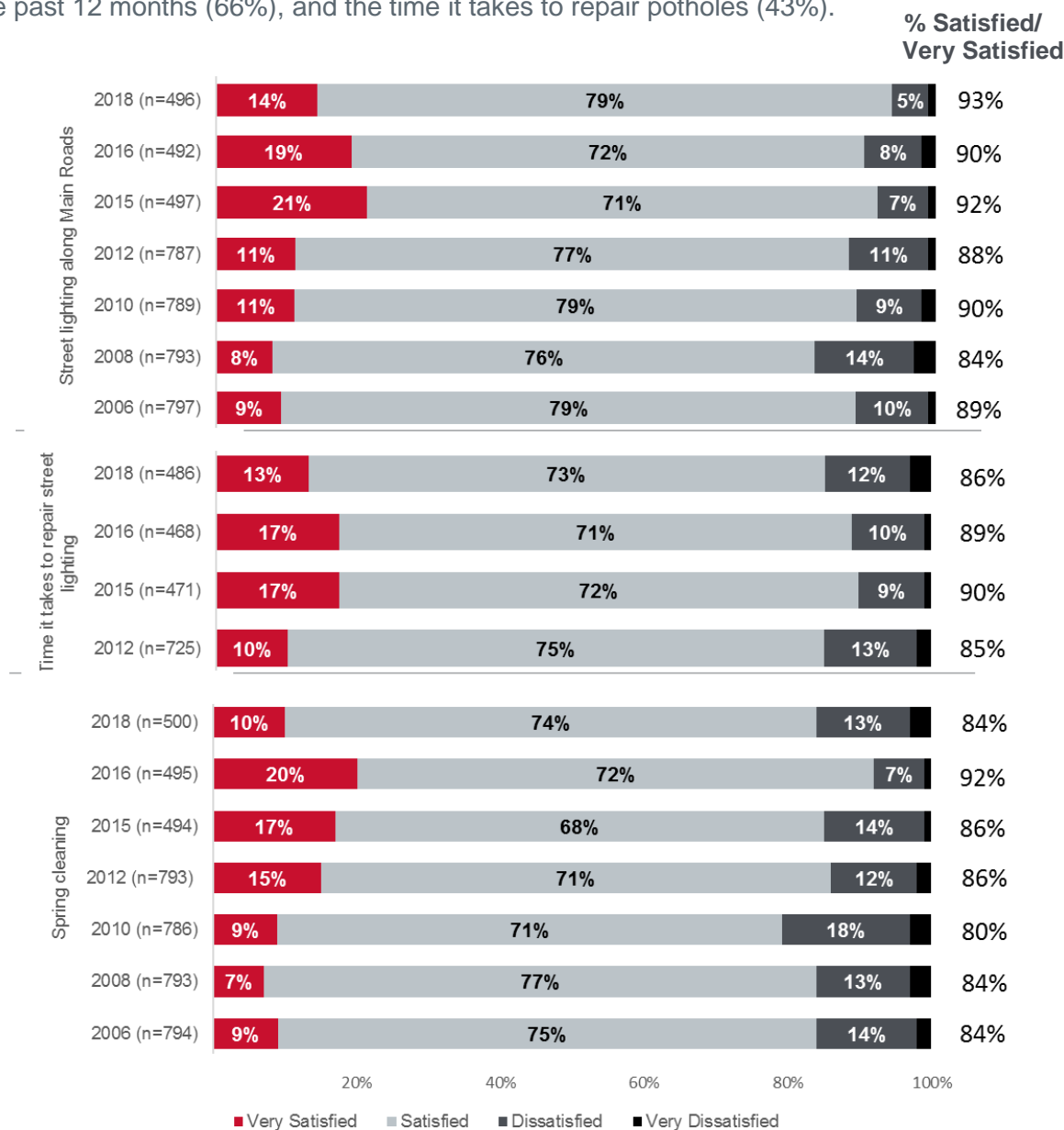


Figure 9. Satisfaction with conditions and services of main roads.

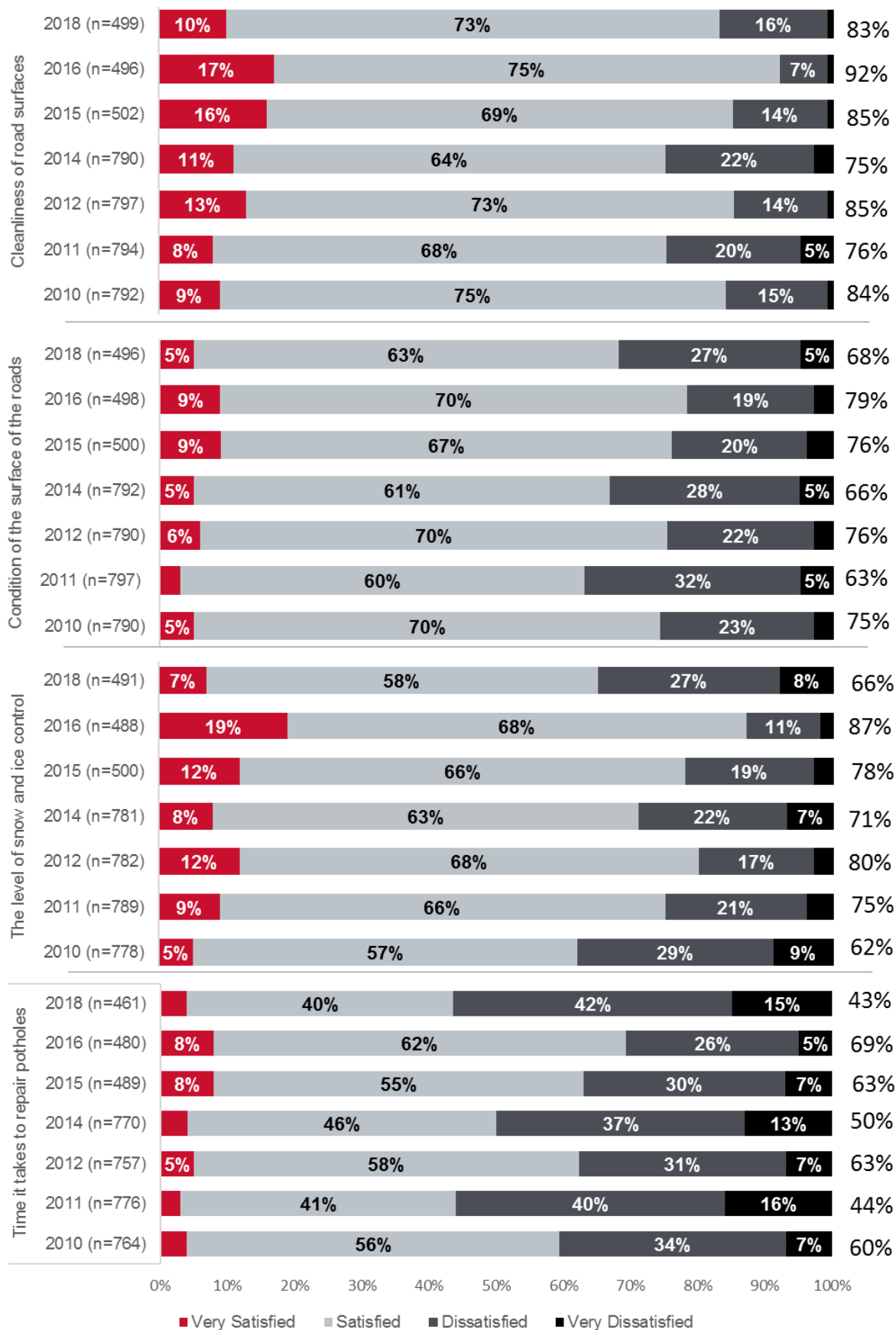


Figure 9. Satisfaction with conditions and services of main roads continued...

Signs and Markings – Main Roads

Calgarians were also asked to rate the condition of road (or lane) markings along the main roads in Calgary. Over the years, the percent of 'excellent' and 'good' responses have stayed relatively stable. See Figure 10.

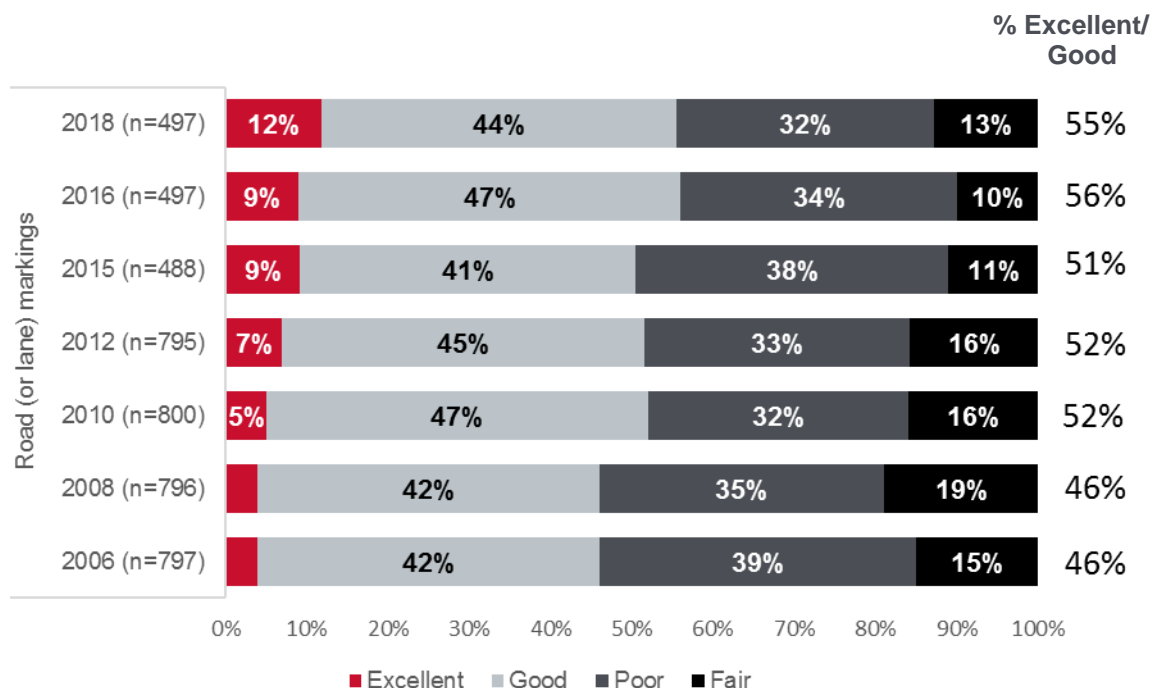


Figure 10. Perceptions of condition of signs and markings along main roads. Is this about the condition of signs or is it just about lane markings and the chart below about signs?

In previous years, Calgarians were asked to rate the condition of all road signs. In 2018, the questions asking to evaluate traffic signs and road signs were separated. As such, historical data are no longer available. Just under 8 in 10 Calgarians indicated that the condition of road signs (76%) and Traffic signs (79%) was either good or excellent. See Figure 11.

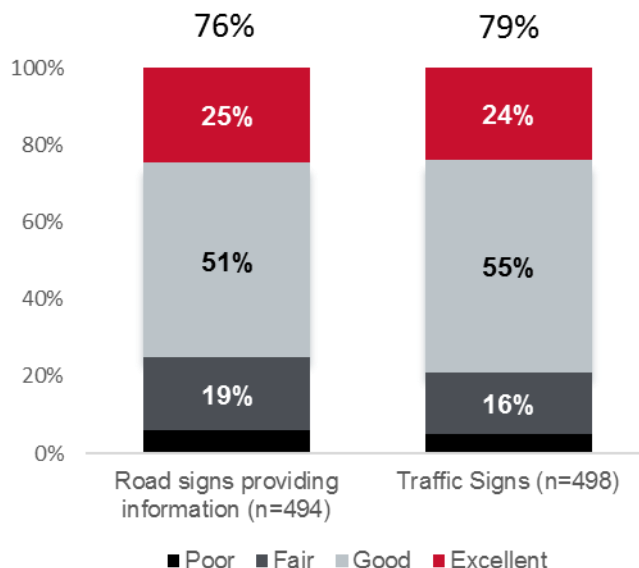


Figure 11. Perception of condition of traffic signs and road signs.

Neighbourhood Roads

Calgarians were then given an opportunity to evaluate similar conditions and services for the roads and sidewalks in their neighbourhoods. Those with a lane behind their home were also asked to rate the condition of their lane.

Roads Conditions and Services – Neighbourhood Roads

Figure 12 (pg. 19-20) presents Calgarians ratings of conditions and services of neighbourhood roads. Consistent with main road evaluations, the highest satisfaction score was given to the condition of neighbourhood street lighting (88%). This is an increase of 2 percentage points since 2016. Both cleanliness and general condition of sidewalks in the neighborhood had satisfaction scores of 82%, closely followed by road surface condition at 81% and spring cleaning at 78%. Once again, consistent with opinions regarding main roads, level of snow and ice control, and the time it takes to have potholes repaired in neighbourhoods saw lower satisfaction scores (39% and 47%, respectively).



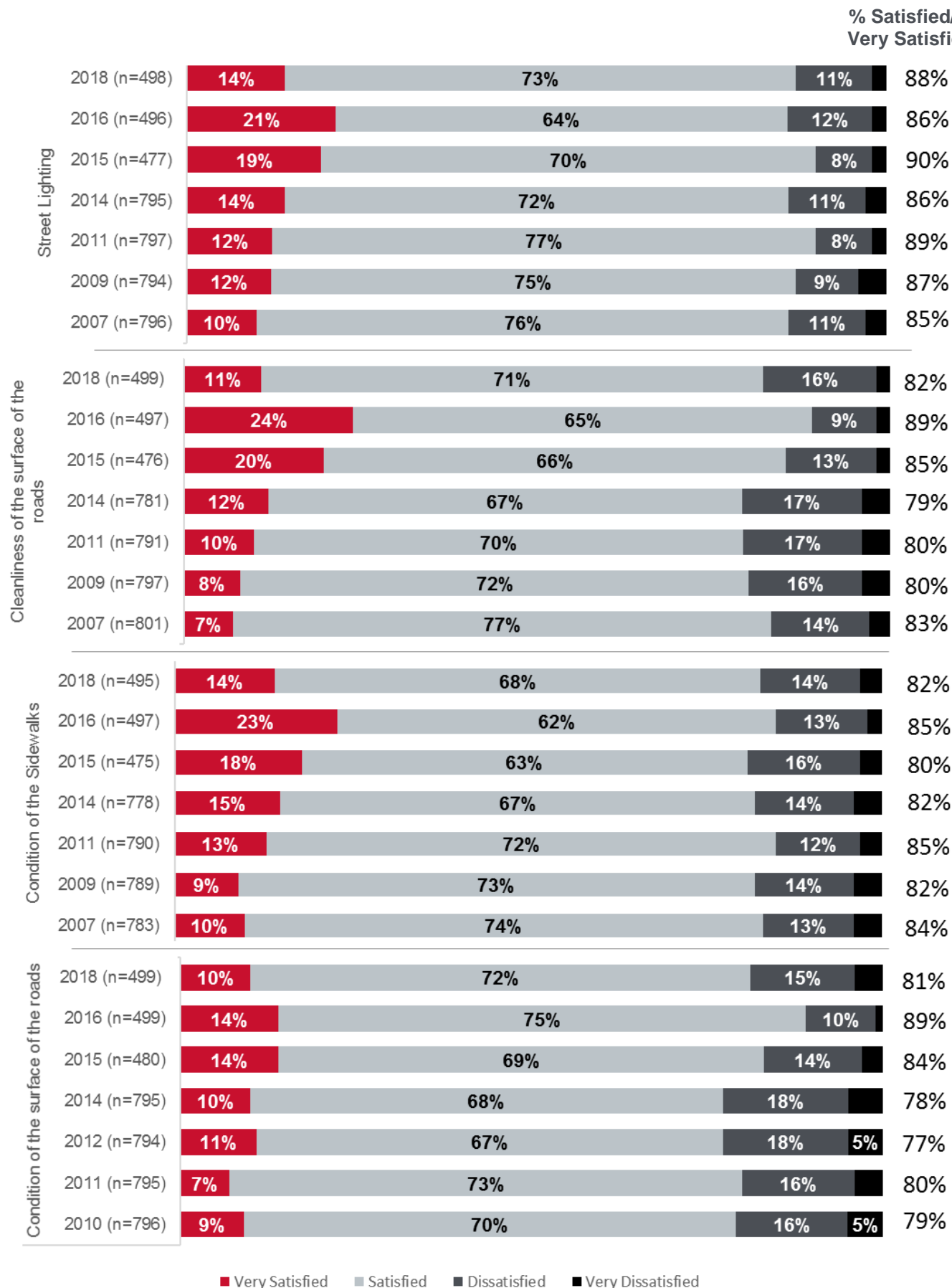


Figure 12. Satisfaction with condition and services of neighbourhood roads.

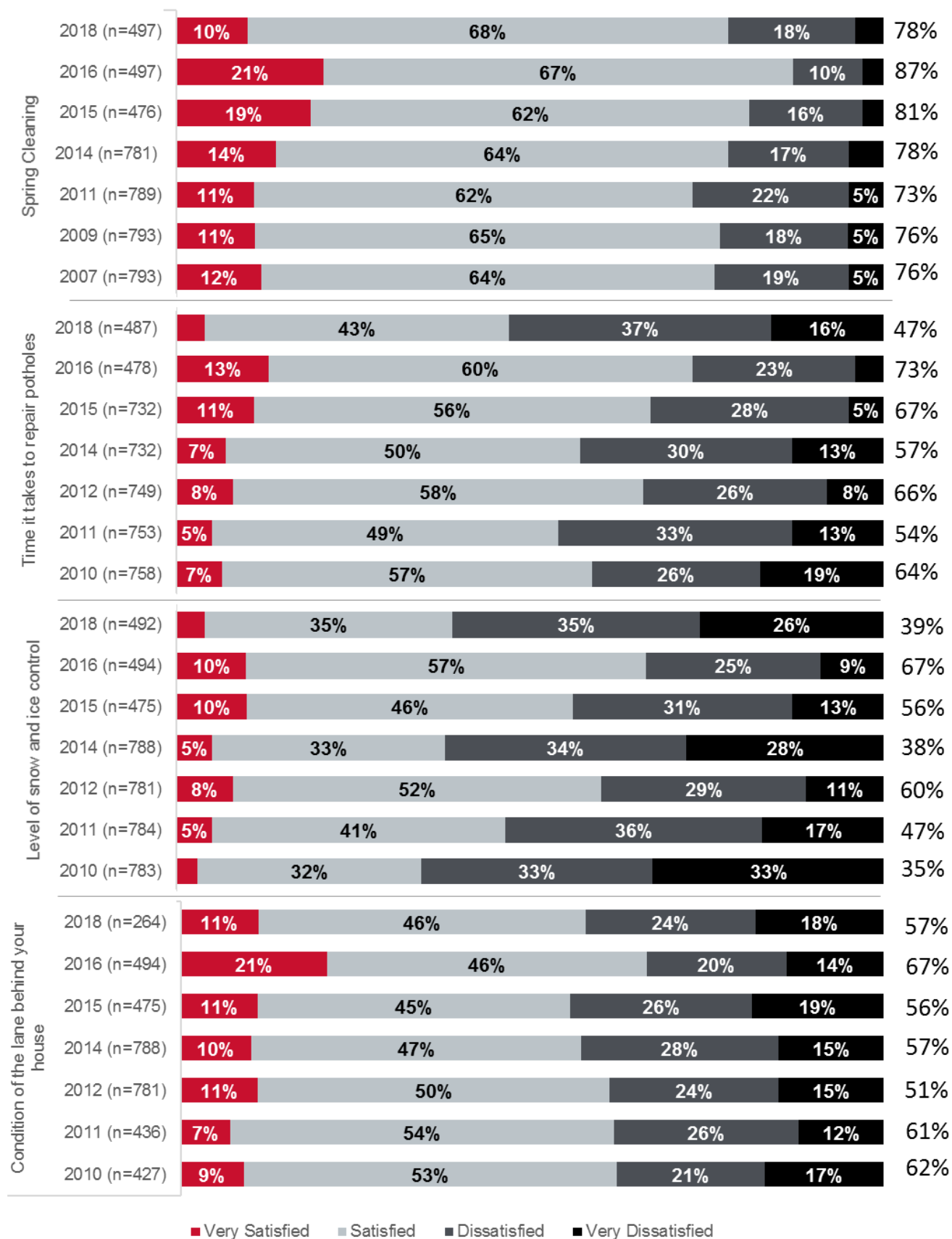


Figure 12. Satisfaction with condition and services of neighbourhood roads continued...

Signs and Markings – Neighbourhood Roads

Calgarians were then asked to rate the condition of road lane markings, road signs, pedestrian crosswalk markings, and playground zone markings along neighbourhood roads. In 2018, all signs and markings saw an increase in the percent of Calgarians rating the condition as excellent or good; road signs increased by 6 percentage points (from 78% in 2016 to 84% in 2018), pedestrian crosswalk markings increased by 7 percentage points (from 63% in 2016 to 70% in 2018), and road markings increased by 2 percentage points (from 66% in 2016 to 68% in 2018). Evaluating playground zone markings was new in 2018, as such, no historical data were available. Condition of playground zone markings had the second highest score, with 80% of Calgarians rating the condition as either good or excellent. See Figure 13.

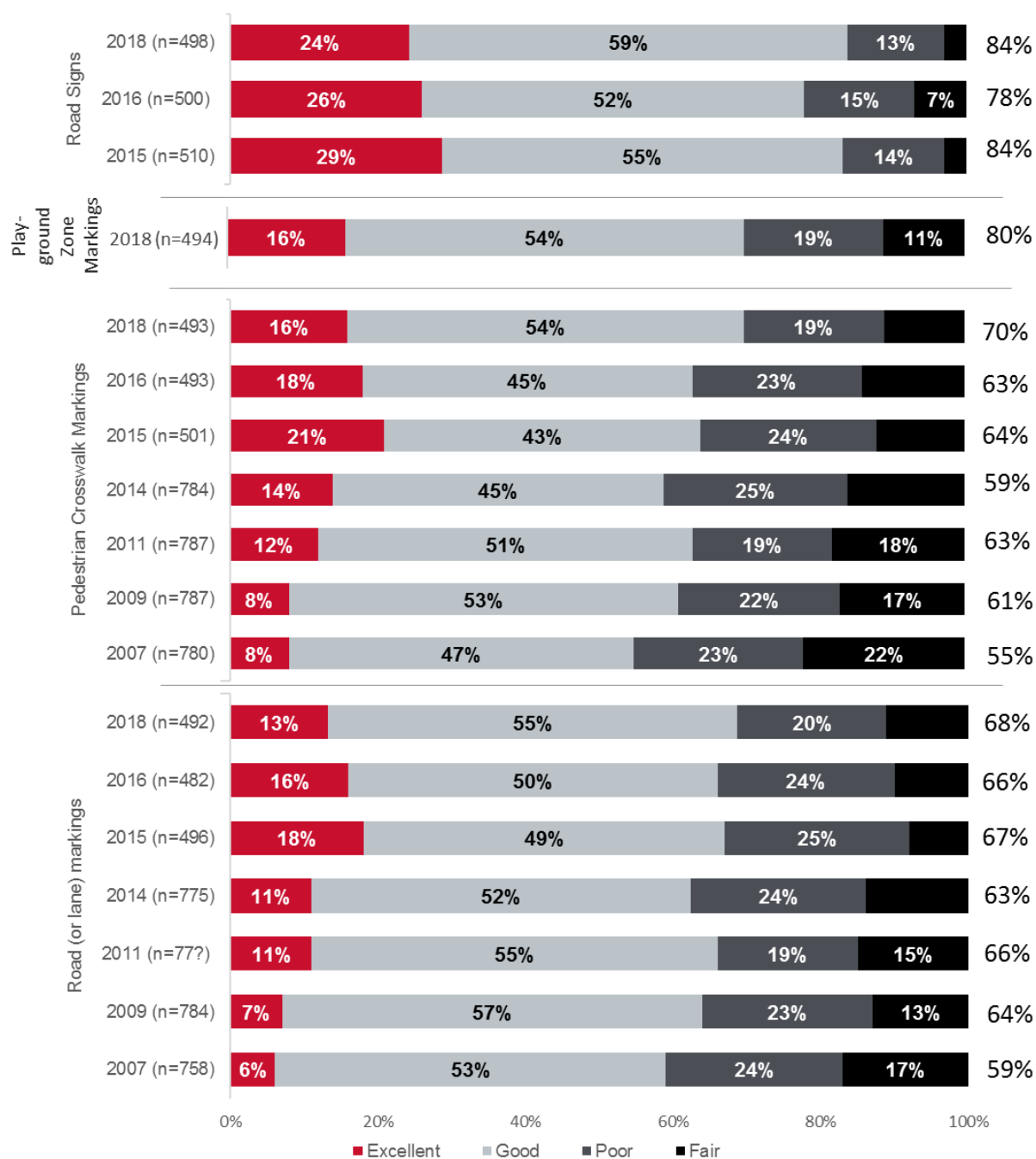


Figure 13. Perceptions of condition of signs and markings in neighbourhoods.

Provincially Maintained Roads

Although the maintenance and operation services conducted on Deerfoot Trail and Stoney Trail are the responsibility of the Alberta Government, Calgarians were asked to rate the condition and services of these roadways. The question asked respondents to consider maintenance and operation services such as the quality of road surface, street lighting, road markings, street signs, and snow removal on Deerfoot Trail and Stoney Trail, separately. In 2016, these two roads were asked to be considered together, as such, historical data is not available.

As seen in Figure 14 and Figure 15, satisfaction with both Deerfoot and Stoney Trail is high. However, Stoney Trail exhibits an exceptionally high satisfaction rating, with 94% of Calgarians indicating that they are either very satisfied or satisfied. Stoney trail scored 12 percentage points higher than Deerfoot Trail, which is currently sitting at 82%.

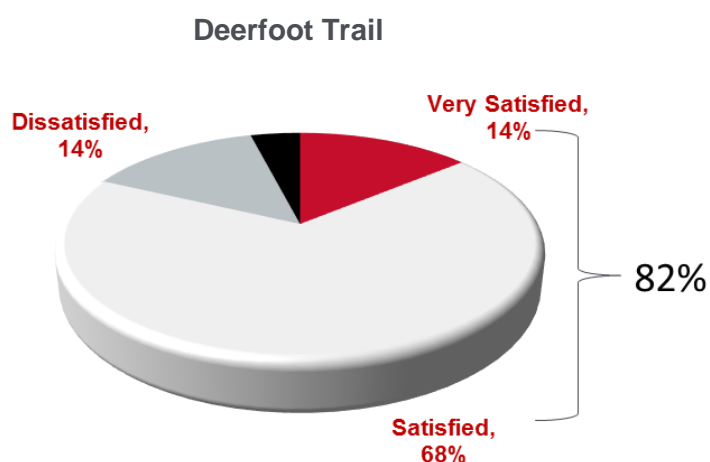


Figure 14. Satisfaction with the maintenance and operations services such as the quality of the road surface, street lighting, road markings, street signs, and snow removal on Deerfoot Trail. $n = 444$.

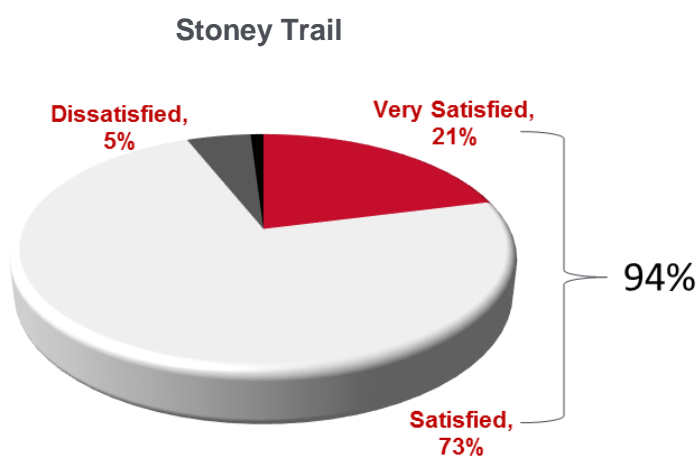


Figure 15. Satisfaction with the maintenance and operations services such as the quality of the road surface, street lighting, road markings, street signs, and snow removal on Stoney Trail. $n = 417$.



Traffic Signals

Figure 16 (pg. 23-24) shows Calgarians perspectives for mobility or traffic and traffic controls at roadway intersections. In 2018, over 8 in 10 (85%) Calgarians were satisfied or very satisfied with the availability of signal controls at crosswalks for pedestrians. This is a 5 percentage point increase from 2016. Although the time it takes for traffic signals to change maintains the second highest satisfaction score, the percent of very satisfied and satisfied has decreased by 3 percentage points to 70%. Both coordination of traffic signals during rush hour (this year decreasing by 2 percentage points to 63%) and traffic signals being able to accommodate traffic volumes during rush hour (this year increasing by 1 percentage point to 61%) have remained relatively stable over the years.

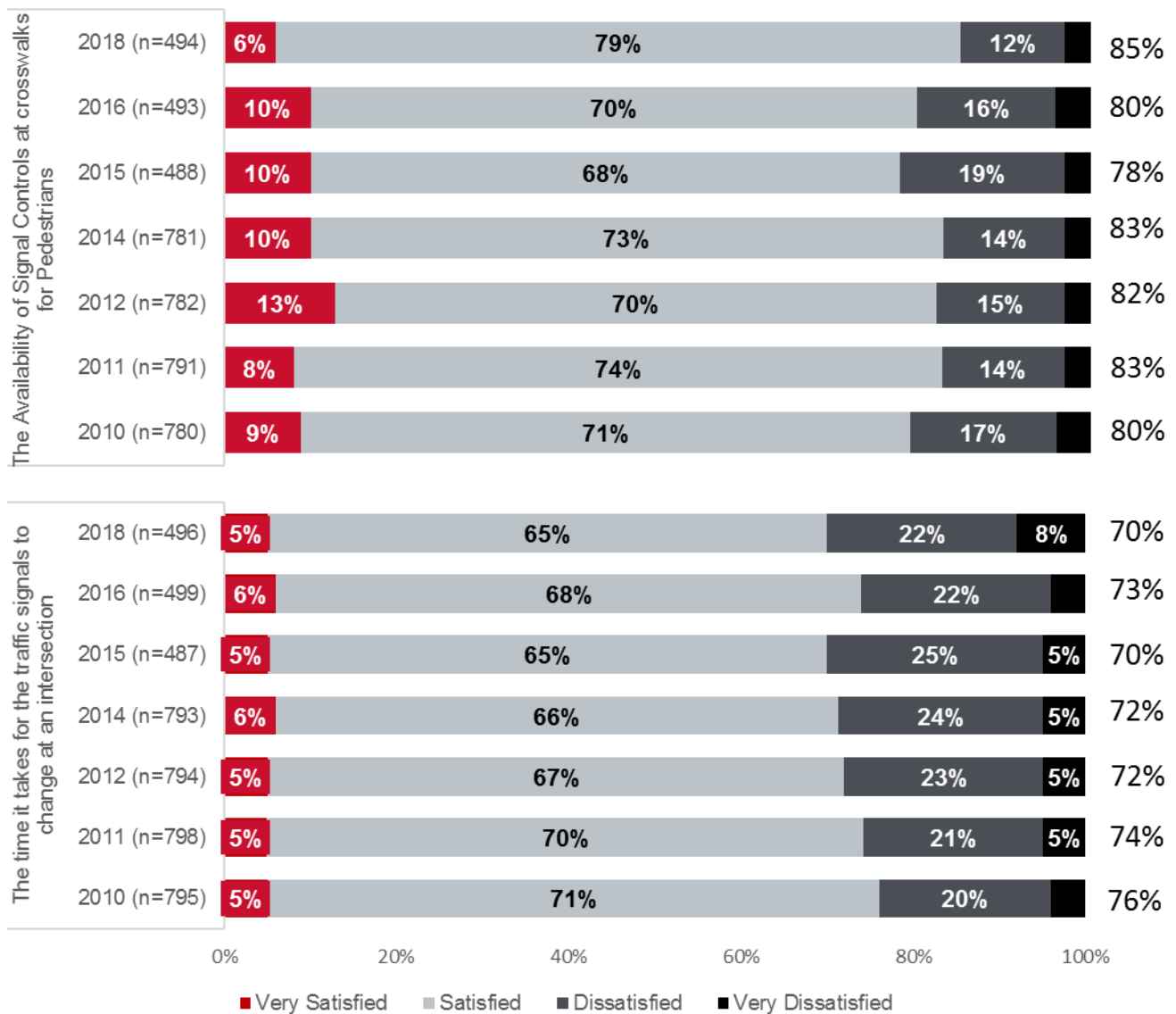
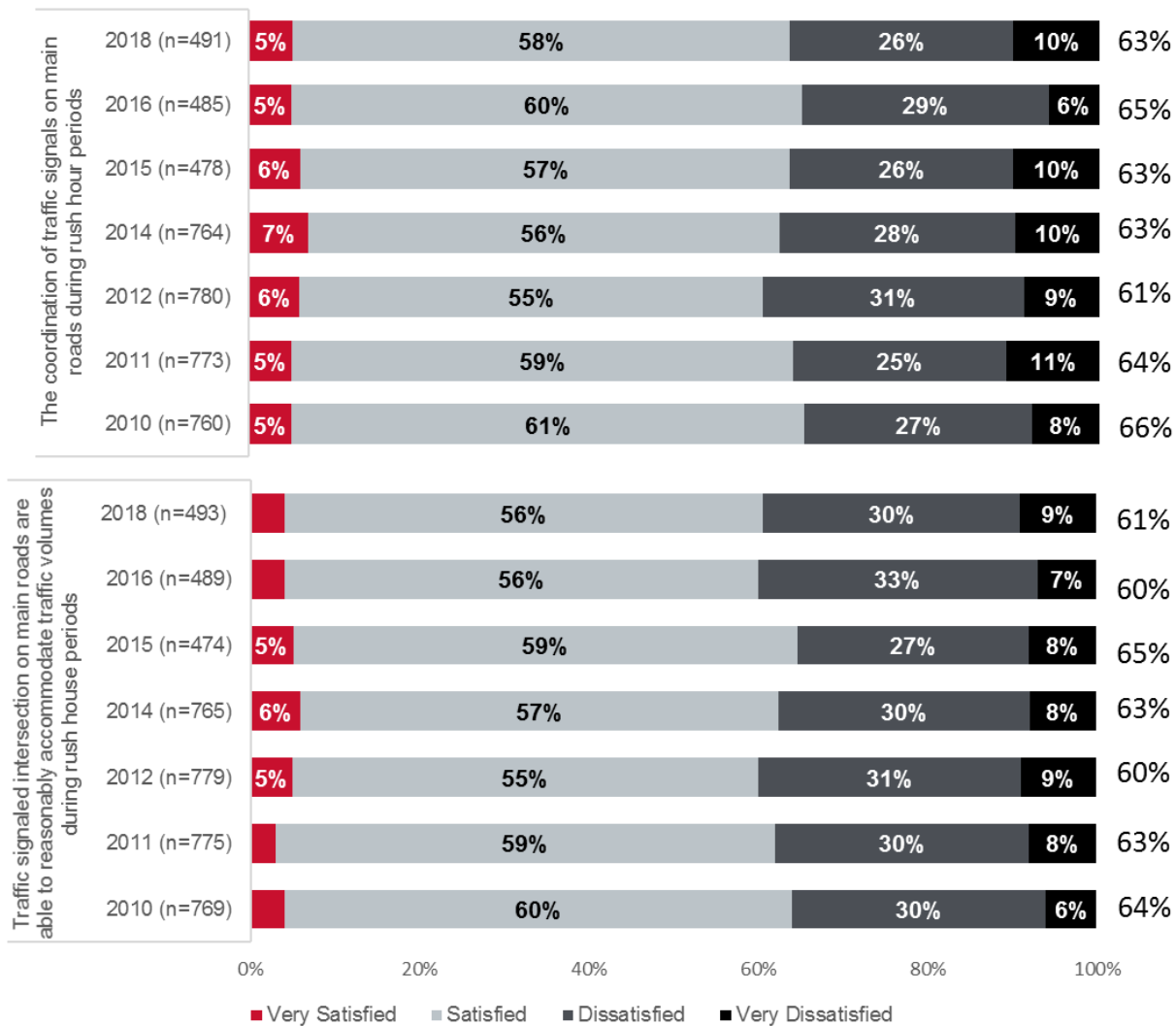


Figure 16. Satisfaction with traffic signals at roadway intersections.



Sidewalks

Satisfaction with Main Road Sidewalks

New in 2018, Calgarians were asked to provide their opinions about sidewalks and pedestrian crosswalks on Calgary's main roads. Highest satisfaction levels were provided for general condition of sidewalks (82%) and accessibility of pedestrian crosswalks (81%). Slightly under 8 out of 10 Calgarians indicated that they were very satisfied or satisfied with pedestrian safety on sidewalks (79%) and pedestrian crosswalk markings (76%). Satisfaction was seen to a lesser for accessibility of sidewalks in construction zones (62%). See Figure 17.

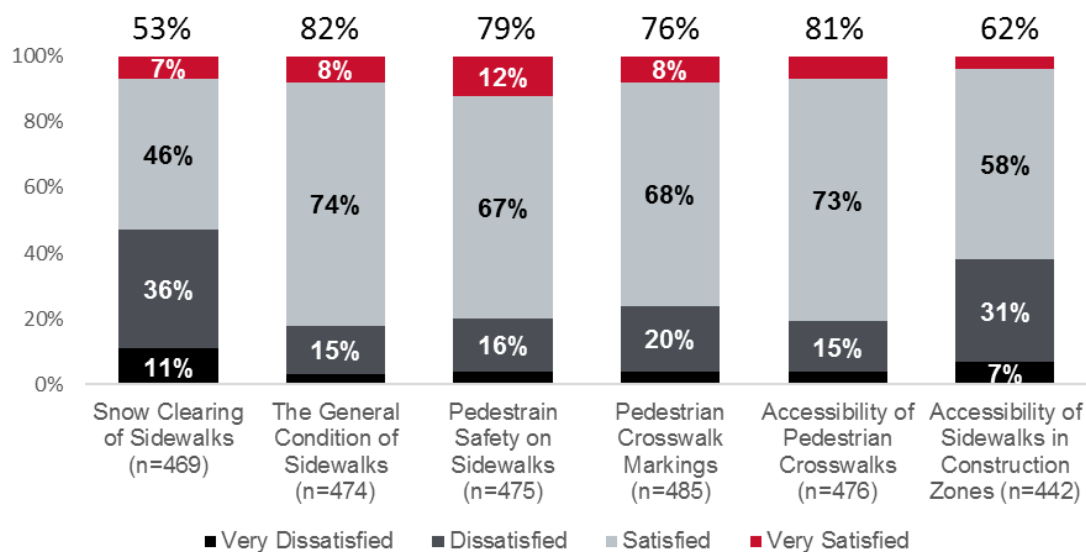


Figure 17. Satisfaction with sidewalk and markings along main roads.



Satisfaction with Business Area Sidewalks

When asked about the condition of sidewalks downtown and in frequented business areas, the majority of Calgarians (89%) reported being very satisfied or satisfied. Figure 18 shows that there has been a steady upward trend in this area, with a jump of 3 percentage points from 2016 to 2018.

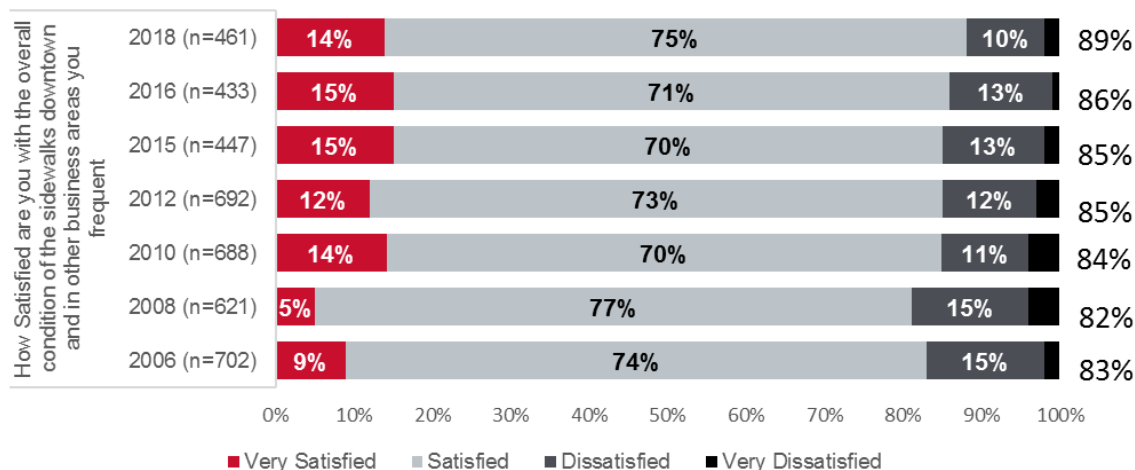


Figure 18. Satisfaction with downtown and business area sidewalks

Satisfaction with Business Area Pedestrian Crosswalk Markings

Figure 19 shows that 83% of Calgarians responded with either Very Satisfied or Satisfied with pedestrian crosswalk markings downtown and in other business areas.

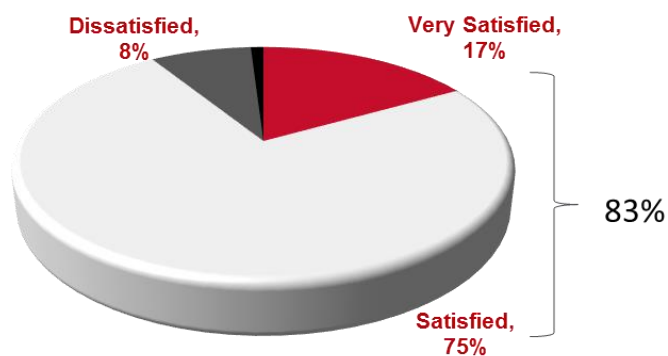


Figure 19. Satisfaction with downtown and business area crosswalk markings. n=467.



Perceptions of Crosswalk Conditions

Online respondents were asked to look at images of crosswalks in Calgary and rate on a scale of 1 to 10, the extent of urgency around repainting the lines (as shown in the image). Results of the percentage of Calgarians that selected each option can be seen in Table 2 below.

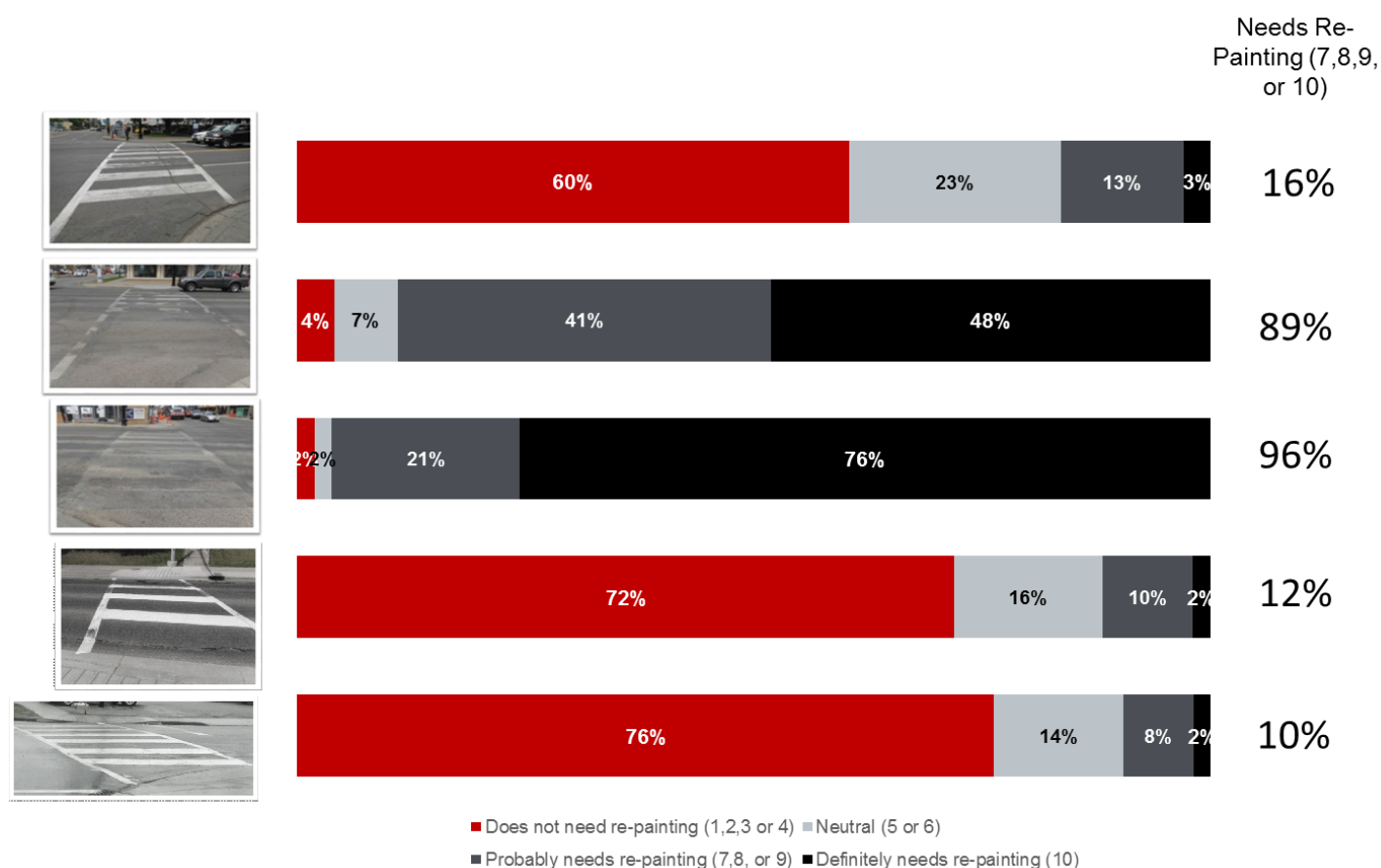


Table 2. Perception of crosswalk conditions taken from the online open-link survey.

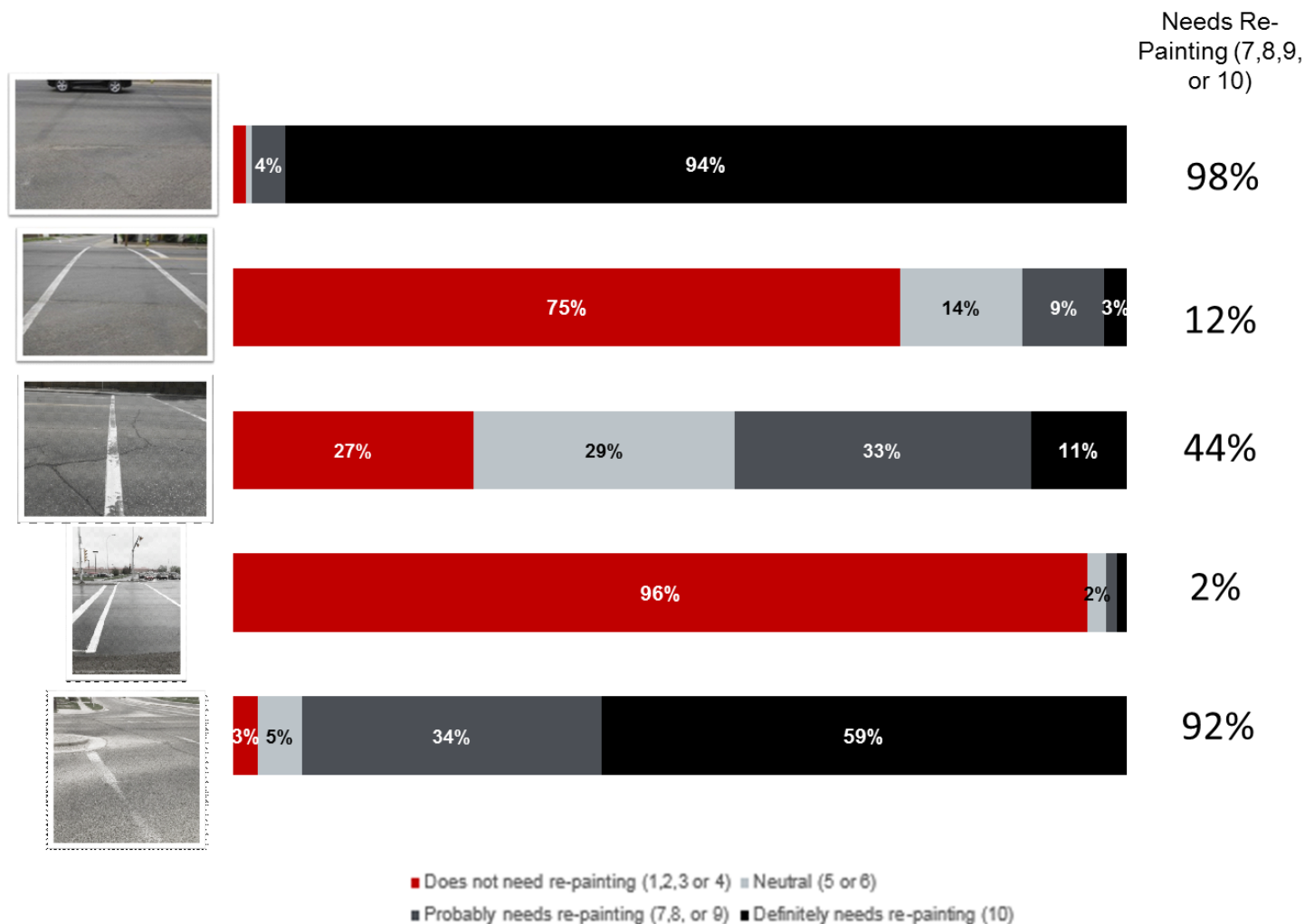


Table 2. Perception of crosswalk conditions taken from the online open-link survey continued...

Communications

Use of Communications Roads Methods

Figure 20 shows the percent of Calgarians that have used the listed methods to become informed about conditions in Calgary in the past 12 months. Results are similar to previous years, with the most Calgarians using The City's Traffic Advisory Radio Station (27%), however this decreased by 9 percentage points since 2016. Notably, 19% of Calgarians have accessed Calgary Roads eMaps (new question in 2018).

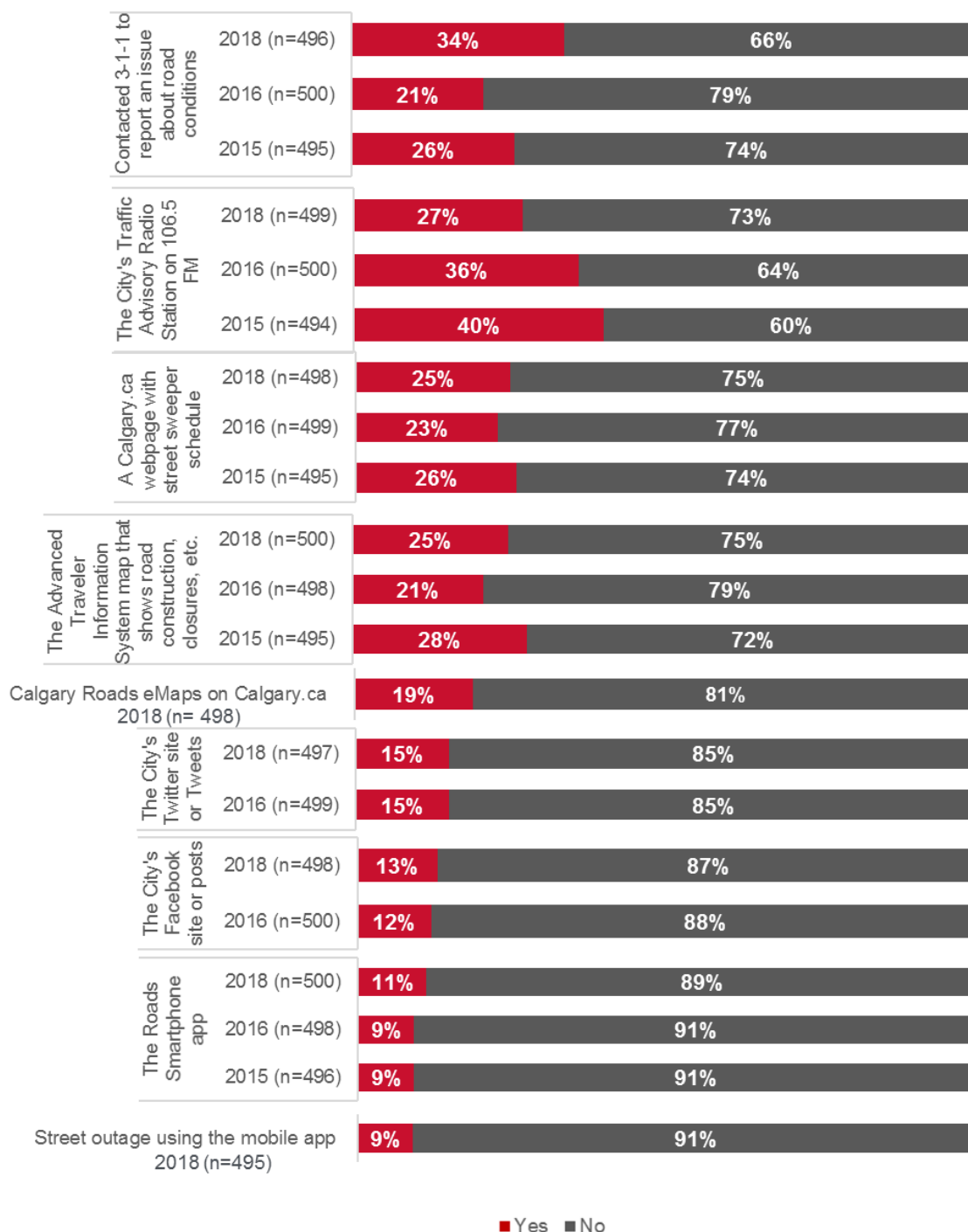


Figure 20. Methods used by Calgarians to become informed about road Conditions in the past 12 months

Helpfulness of Roads Communication Methods

In terms of helpfulness of Roads communication methods, Calgarians rated Twitter (100%), The Roads Smartphone app (98%), and The Advanced Traveler Information System (98%) as the most helpful. 3-1-1, The Traffic Advisory Station, and the street sweeper schedule on a Calgary.ca webpage, all saw a slight decrease in helpfulness in 2018. See Figure 21.

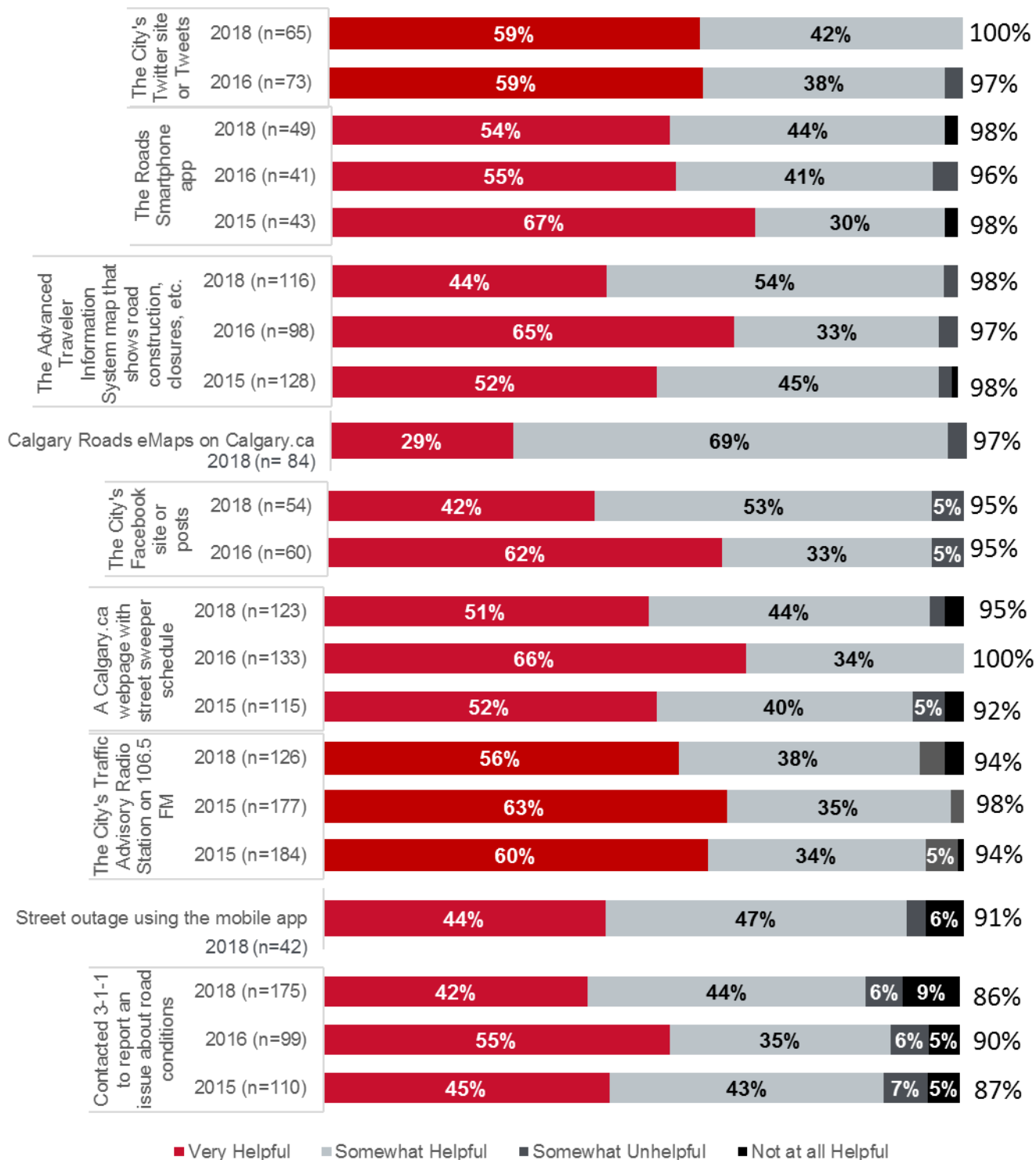


Figure 21. Perceptions of helpfulness or roads communications methods.

Satisfaction with Roads Communications

Calgarians were asked about their satisfaction with the efforts of The City of Calgary to inform citizens about road conditions in Calgary. Figure 22 reveals that the vast majority of Calgarians (83%) stated that they were very satisfied or satisfied with Roads communications. Although the score remains high, there has been a decrease of 5 percentage points in 2018 after being stable at 89% in both 2015 and 2016. See Figure 22.

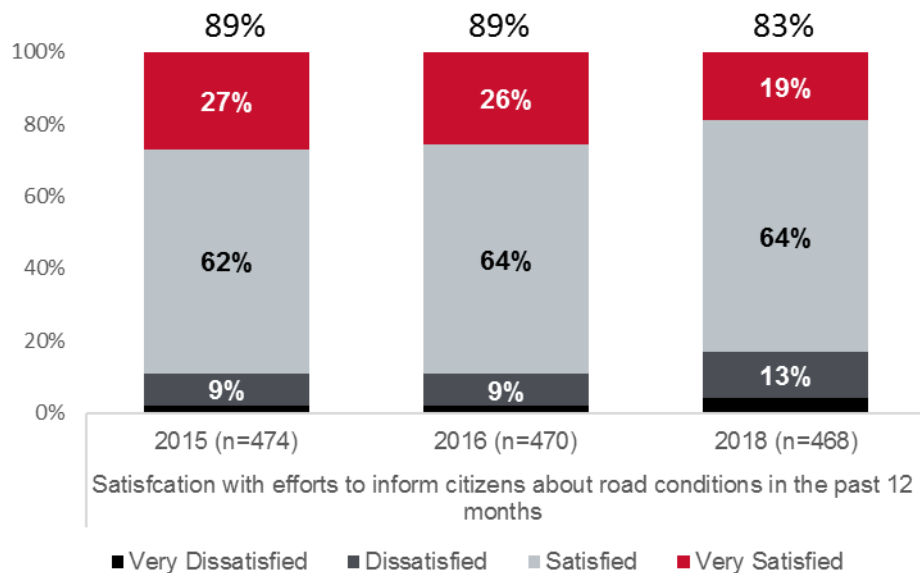


Figure 22. Satisfaction with the efforts of The City of Calgary to inform citizens about road conditions in Calgary.



Satisfaction with Roads Customer Service

In 2018, 9% of Calgarians indicated that they had directly communicated or interacted with Roads employees such as speaking to staff who are cleaning or fixing roads, when obtaining a permit, or receiving a call back from a Roads employee after calling 3-1-1. This percentage remains unchanged from 2016. Calgarians were asked to rate aspects of customer service based on their experience with Roads staff. Courtesy, helpfulness, and friendliness of staff had a high level of agreement, with 92% of Calgarians indicating that they strongly or somewhat agree with the statement. The time it took for Roads staff to respond to inquiries had a lower agreement score of 77%. Most notably, Roads staff were knowledgeable decreased by 14 percentage points to 80% agreement.

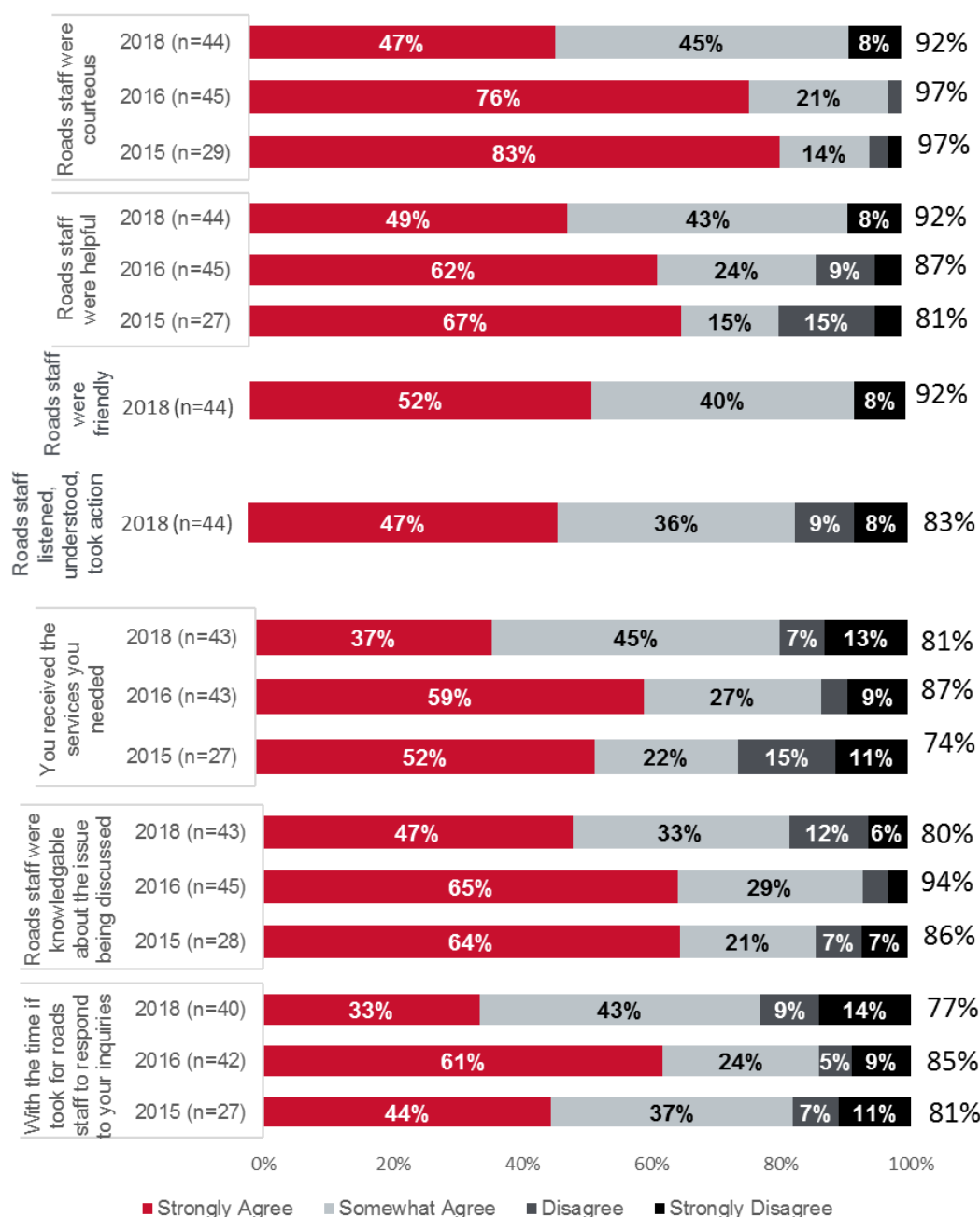


Figure 23. Satisfaction with communicating or interaction with The City of Calgary Roads staff.